

PartnerShip Summit - Second Edition

CHARTING NEW WATERS

Building Innovation, Driving Sustainable Growth

FINCANTIERI

 **PartnerShip**

Why We Need an Ethics of AI in Defence

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Outline

AI and digital war

Why?

What

A message

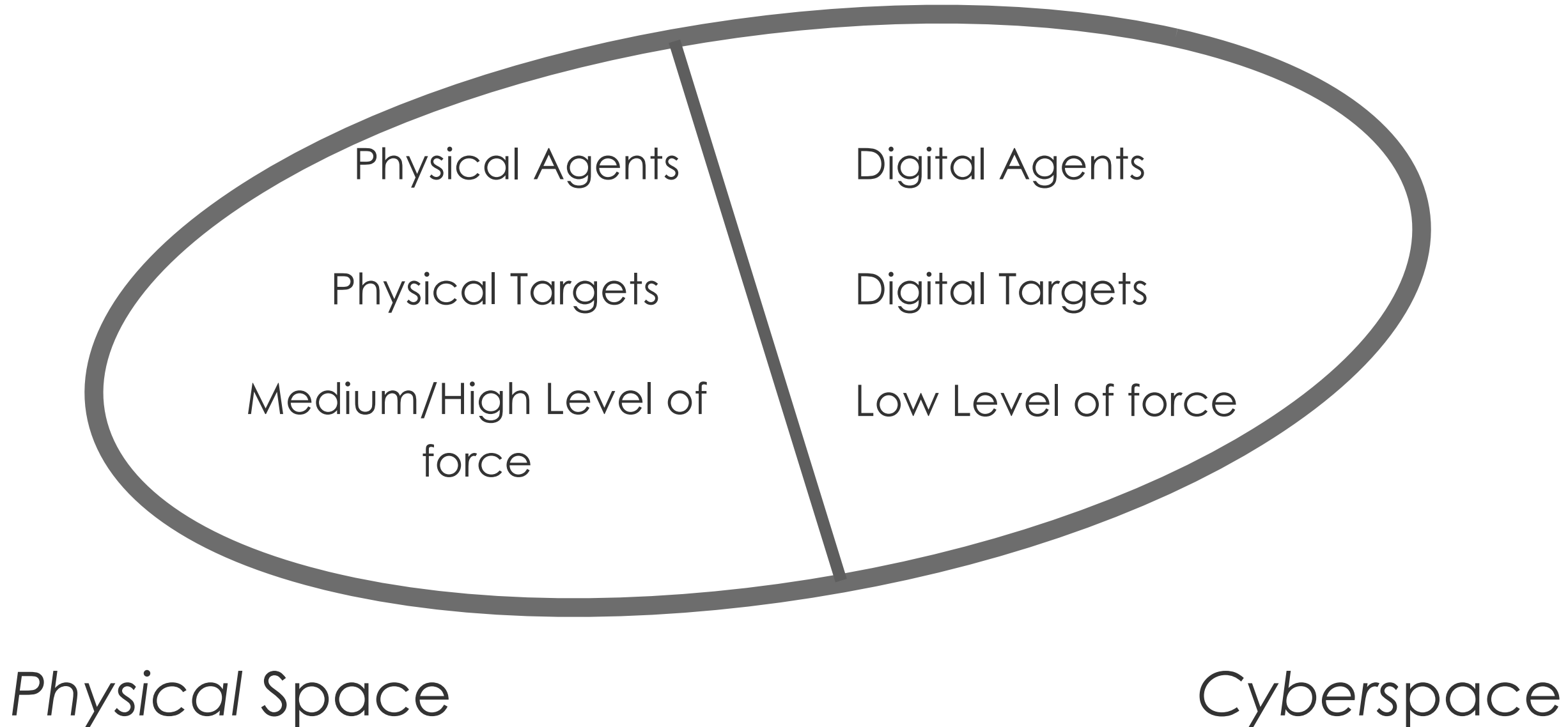


It's not about sci-fi



It's about *current* and
foreseeable uses of AI
across the scope of
defence operations

Two domains



Digital warfare

Physical Agents & Digital Agents

Physical Targets & Digital Targets

Low/Medium/High Level of Force

Physical Space

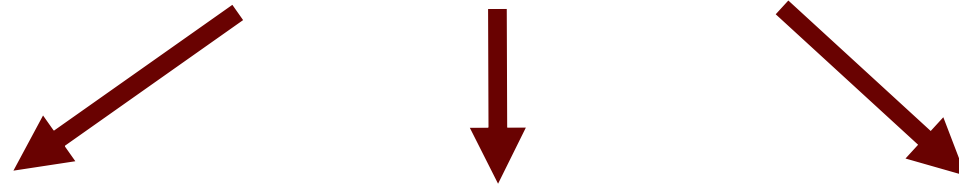
Cyberspace



200 zettabytes of data by 2025 (IDC&BIP 2024)
(>42 trillions di DVDs)



AI for Defence – Possible Uses



Sustainment and support uses

- AI for back-office operations
- AI for logistics and operational planning
- AI for intelligence

Adversarial and non-kinetic uses

- AI for system's response
- AI for offensive cyber
- AI to design malware

Adversarial and kinetic uses

- Lethal Autonomous Weapon Systems
- AI for tactical decision
- AI for military personnel in combat

AI for Defence – Ethical Challenges

Sustainment and support uses

Adversarial and non-kinetic uses

Adversarial and kinetic uses

- Levels of trust
- Accountability gap
- Lack of robustness
- Lack of transparency
- Breaches of human rights

- Risks of escalation
- Lack of control
- JWT: pre-emption vs prevention
- JWT: proportionality

- Moral responsibility gap
- Human dignity
- JWT: distinction and necessity

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Whether

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Ethics is conceptual analysis to identify a strategy for risks and opportunities



Ethics is conceptual analysis to identify a strategy for risks and opportunities

The background image is a composite. The left side features a dark blue, textured background with the word "Purse" written vertically in a light blue, serif font. The right side shows a person in a military uniform, seen from the back, sitting at a desk in a dimly lit room. They are working on a computer with two monitors. The left monitor displays a software interface with various icons and text, while the right monitor shows a satellite map or aerial imagery. The room has a rough, textured wall, and a small yellow heart-shaped object with the number "30" is hanging on it. The overall lighting is low, with a blue tint on the left and a warmer, purple-tinged light from the monitors on the right.

War data are sensitive and precious, key to foster
defence innovation
Who should own and access them?

Digital ethics is developed along three axes



X: Ethics of
Data

- Privacy
 - re-identification
 - group privacy
- Trust in whom?
- Transparency of what?

Y: Ethics of
Algorithms

- Responsibility/accountability
- Ethical design of requirements
- Ethical auditing of algorithms

Z: Ethics of
Practices

- Deontological code
- Consent
- Secondary use

Digital ethics is developed along three axes



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graph TD; A[Digital ethics is developed along three axes] --> B[X: Ethics of Data]; A --> C[Y: Ethics of Algorithms]; A --> D[Z: Ethics of Practices];
```

X: Ethics of Data

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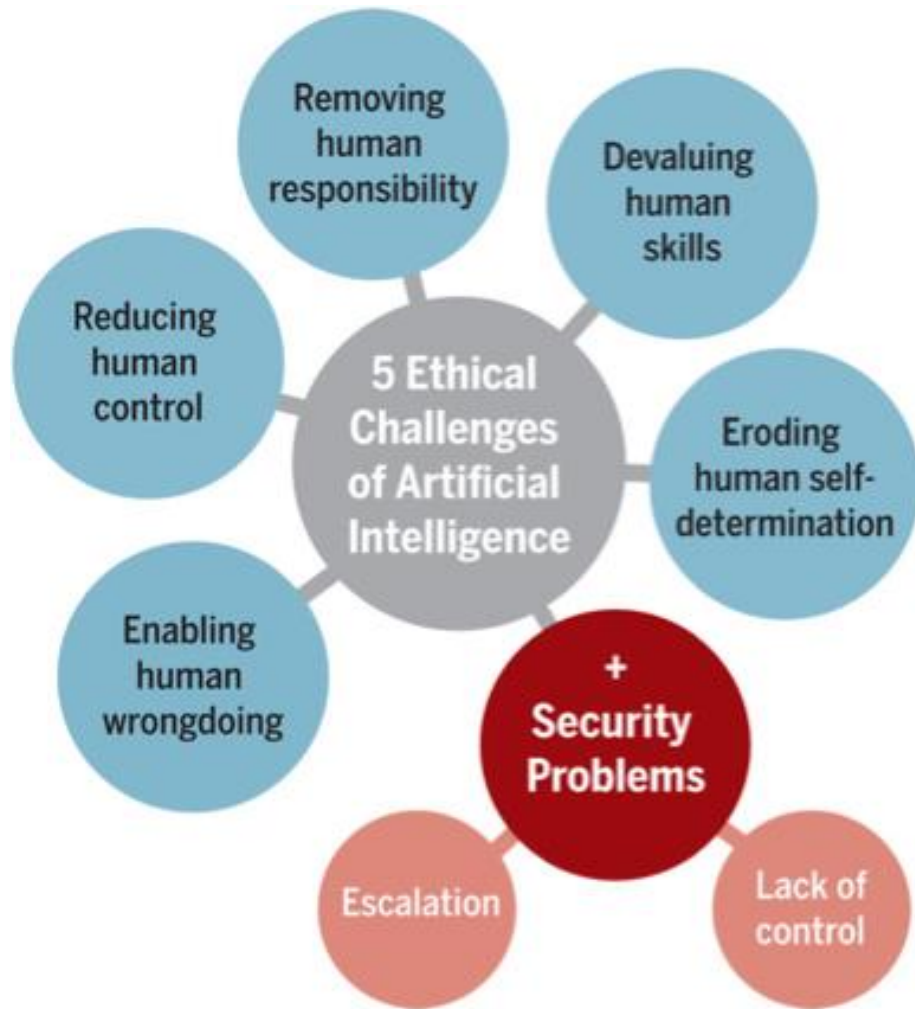
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AI and *digital war*

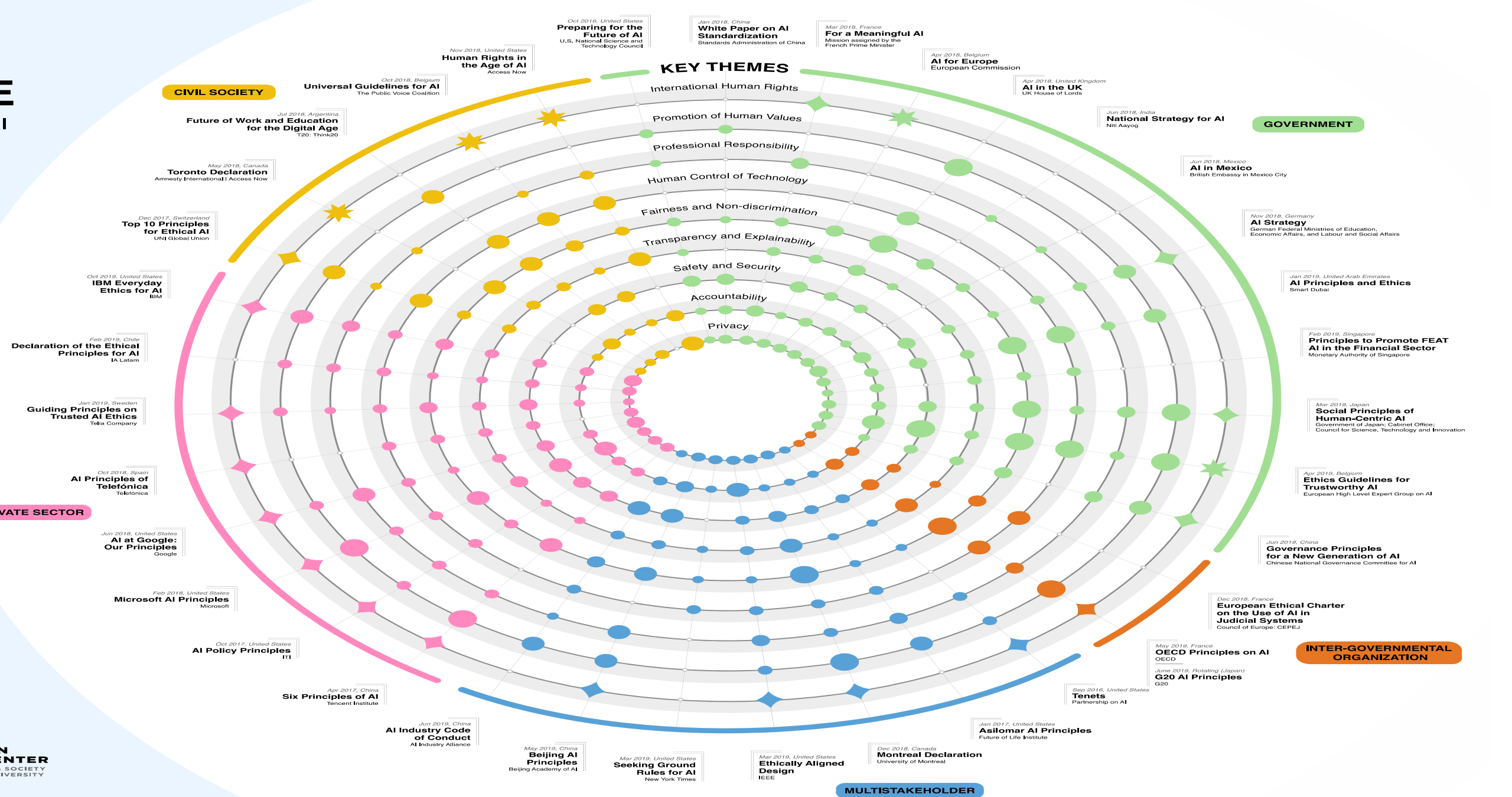
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Ethical risks of AI



AI ethics principles in defence

US

- i. Responsible
- ii. Equitable
- iii. Traceable
- iv. Reliable
- v. Governable

UK

- i. Human centricity
- ii. Responsibility
- iii. Understanding
- iv. Bias and harm mitigation
- v. Reliability

NATO

- i. Lawfulness
- ii. Responsibility & Accountability
- iii. Explainability & Transparency
- iv. Reliability
- v. Equity
- vi. Human centricity

A green plastic toy soldier on the left and a dark brown metal toy soldier on the right, both in combat stances holding rifles, positioned on an old, detailed map. A semi-transparent grey banner with white text is centered over the image.

War is a coercive *behaviour* delivered through
force/disruption

A green plastic toy soldier on the left and a dark brown metal toy soldier on the right, both in a combat stance aiming their rifles. They are positioned on an old, detailed map of a coastal region. A semi-transparent grey banner is centered over the image, containing the text.

The principles need to focus on AI to deliver *coercive*
behaviour

Outline

AI and *digital war*

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A black and white portrait of Winston Churchill. He is shown from the chest up, wearing a dark suit, a white shirt, and a dark bow tie with white polka dots. He has a serious expression and is looking slightly to the left of the camera. The background is out of focus, showing what appears to be a window or a wall with a grid pattern.

*“We shape our buildings
and afterwards our
buildings shape us”*



Thank you

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